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EXAMINER	
HO, CHUONG T	

ART UNIT	PAPER NUMBER
2664	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,419	HONDA ET AL.	
	Examiner	Art Unit	
	Chuong Ho	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3, 2, 5, 4, 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takatori et al. (U.S.Patent No. 5,550,805) in view of Ellis et al. (U.S.Patent No. 6,256,292 B1).

In the claims 1, 8, 9, Takatori et al. having a second node (node A) adjacent to the first node (node E) receive the switch request from the first node (node E) via the optical filbers (see col.6, lines 20-60); Having the second node send a ring switch request to other nodes (nodes D, B) when the second node (node A) detects a failure in the line over which it receives a signal from the first node (node E) (see col. 6, lines 20-60). Takatori is silent to disclosing a first node receiving as input an LP-S (lockout of protection (span)) command.

Ellis et al. discloses the invention further comprises a method for communicating information on a bidirectional line switched ring (BLSR) configuration including a plurality (K) of ring nodes connected by a first and second transmission line (see col. 4, lines 57-67) comprising:

A first node receiving as input an LP-S (Lockout of protection (span)) command (see col. 11, line 26, table 1, K1, table, K2) (see col. 11, lines 11-62) (see col. 10, lines 32-40, lines 55-60);

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Takatori with the teaching of Ellis to receive as input an LP-S (Lockout of protection (span)) command in order to apply the rules associated with bidirectional actions and span switching.

4. In the claims 3, 4, Ellis et al. discloses relay nodes between first node (node C) and second node (node D) enter into a K byte pass-through state allowing only the K bytes pass-through therethrough when receiving a switch request (FS-R, SF-R, SD-R, MS-R, EX-R) having highest priority level directed to second node (node D) from first node (C).

(see col. 10, lines 55-65, col. 11, lines 20-62).

5. In the claims 2, 5, Takatori et al. having a second node (node A) adjacent to the first node (node E) receive the switch request from the first node (node E) via the optical filbers (see col.6, lines 20-60); Having the second node send a ring switch request to other nodes (nodes D, B) when the second node (node A) detects a failure in the line over which it receives a signal from the first node (node E) (see col. 6, lines 20-60). Takatori is silent to disclosing a first node receiving as input an LP-S (lockout of protection (span)) command.

Ellis et al. discloses the invention further comprises a method for communicating information on a bidirectional line switched ring (BLSR) configuration including a

plurality (K) of ring nodes connected by a first and second transmission line (see col. 4, lines 57-67) comprising:

A first node receiving as input an LP-S (Lockout of protection (span)) command (see col. 11, line 26, table 1, K1, table, K2) (see col. 11, lines 11-62) (see col. 10, lines 32-40, lines 55-60);

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Takatori with the teaching of Ellis to receive as input an LP-S (Lockout of protection (span)) command in order to apply the rules associated with bidirectional actions and span switching.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Ellis et al. (U.S.Patent No. 6,256,292 B1)

In the claim 5, Ellis discloses having relay nodes (intermediate nodes C, D) other than two adjacent nodes (nodes A, B) connected to two ends of a span to be switched enter a K-byte pass-through state (see page 2, [0051], assume that node A detecting an alarm becomes the switching node and transmits a request indicating the transmission

line failure (SF-RING: Signal Failure Ring) to both of the short path and long path with respect to the opposing node B. The nodes D and C receiving the request via the long path identify the destination B and when recognizing that they are not the destination enter into a "full pass through" state and allow the K1 and K2 bytes and protection line channels to pass through) allowing only the K bytes to pass therethrough due to a span switch request direct from one of two adjacent nodes (nodes A, B) to the other, and having them maintain the K byte pass-through state when they receive a ring switch request (see page 2, [0051], assume that node A detecting an alarm becomes the switching node and transmits a request indicating the transmission line failure (SF-RING: Signal Failure Ring) to both of the short path and long path with respect to the opposing node B. The nodes D and C receiving the request via the long path identify the destination B and when recognizing that they are not the destination enter into a "full pass through" state and allow the K1 and K2 bytes and protection line channels to pass through) directed from one of two adjacent nodes (nodes A, B) to the other under the above entered K byte pass-through state.

8. Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi (U.S.Patent No. 2002/0009091 A1).

In the claim 5, Taniguchi discloses having relay nodes (intermediate nodes B, A, F and E assume a full-passthrough state when they see the LPR) other than two adjacent nodes (nodes C, D) connected to two ends of a span to be switched enter a K-byte pass-through state (see col. 10, lines 55-65) allowing only the K bytes to pass therethrough due to a span switch request direct from one of two adjacent nodes (nodes

C, D) to the other, and having them maintain the K byte pass-through state when they receive a ring switch request (FS-R, SF-R, SD-R, MS-R, EX-R) (see col. 11, lines 20-60) directed from one of two adjacent nodes (nodes C, D) to the other under the above entered K byte pass-through state (see col. 10, lines 55-60, col. 11, lines 5-60).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takatori et al. (U.S.Patent No. 5,550,805) in view of Richardson (U.S.Patent No. 5,479,608).

In the claim 6, Takatori et al. discloses a first node (node B) receiving a ring switch request from the second node (node E) among two adjacent nodes (B, E) nodes connected to two ends of a span to be switched only transmit a ring switch request corresponding to that ring switch request (see col. 6, lines 15-60, table 1, col. 4, lines 30-47, figure 8).

However, Takatori et al. is silent to disclosing not execute the related ring switch, and maintain an idle state when the first node has received an LP-S (lockout of protection (span)) command or SF-P (signal fail (protection) command before that.

Richardson discloses not execute the related ring switch, and maintain an idle state when the first node has received an LP-S (lockout of protection (span)) command or

SF-P (signal fail (protection) command before that (see col. 10, lines 1-13, protection locked out is highest priority in the group switching request).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Takatori with the teaching of Richardson to not execute the related ring switch, and maintain an idle state when the first node has received an LP-S (lockout of protection (span)) command or SF-P (signal fail (protection) command before that in order to restore failure quickly in mesh network.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takatori et al. (U.S.Patent No. 5,550,805) in view of Takeguchi (U.S.Patent No. 6,735,171 B2).

In the claim 11, Takatori et al. discloses a first node (node B) receiving a ring switch request from the second node (node E) among two adjacent nodes (B, E) nodes connected to two ends of a span to be switched only transmit a ring switch request corresponding to that ring switch request (see col. 6, lines 15-60, table 1, col. 4, lines 30-47, figure 8).

However, Takatori et al. is silent to disclosing differentiating between a switch request LP-S (lockout of protection (span)) and a switch request SF-P (signal fail (protection)) using unused bit regions in K bytes when selectively transmitting at least LP-S and SF-P from a node connected to a span to be switched by utilizing the K bytes.

Takeguchi discloses differentiating between a switch request LP-S (lockout of protection (span)) and a switch request SF-P (signal fail (protection)) using unused bit regions in K bytes when selectively transmitting at least LP-S and SF-P from a node connected to a span to be switched by utilizing the K bytes

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Takatori with the teaching of Takeguchi to differentiate between a switch request LP-S (lockout of protection (span)) and a switch request SF-P (signal fail (protection)) using unused bit regions in K bytes when selectively transmitting at least LP-S and SF-P from a node connected to a span to be switched by utilizing the K bytes that in order to restore failure quickly in mesh network.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Takatori (U.S.Patent No. 5,550,805).

In the claim 10, Takatori et al. discloses having a first node (node A) of the first node and a second node (node E) adjacent thereto across a span (see figure 14) to be switch receive a switch request (EXER-R) (exerciser (ring)) from the second node during the execution of a switch request SF-P (signal fail (protection)) (see col. 5, lines 15-17), and having first node transmit a switch request SF-R (signal fail (ring)) (SF-R, Bits 1-4, 1011, see table 1, col. 6, lines 20-60).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (U.S.Patent No. 6,256,292 B1) in view of Richardson (U.S.Patent No. 5,479,608).

Ellis et al. discloses relay nodes other than two adjacent node connected to two ends of a span to be switched enter a full pass through (see col. 11, lines 1-3) due to be a ring switch request transmitted from one node of two adjacent nodes to the other node (see col. 11, lines 1-60, col. 4, lines 40-55) and, when they receive a span switch request directed to the other node from one node under the above entered full pass-through state (see col. 11, lines 1-3, in the **passthrough or full passthrough** state) (see col. 11, lines 25-60); enter into the K byte pass-through state allowing only the K bytes to pass therethrough where the span switch request has a higher priority level (see col. 11, lines 40-45) and status code (K 2) according to the ring switch request is not a ring bridge or ring switch (K 1 command) (see col. 11, lines 20-60, figure 11).

However, Ellis et al. is silent to disclosing compare priority levels of receiving ring switch request and span switch request.

Richardson discloses compare priority levels of receiving ring switch request (FS-R) and span switch request (FS-S) (see col. 10, lines 1-13, span switch request is highest priority than ring switch request).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Ellis with the teaching of Richardson to compare priority levels of receiving ring switch request and span switch request.

in order to compare priority levels of receiving ring switch request and span switch request.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong ho whose telephone number is (571)272-3133. The examiner can normally be reached on Monday-Friday from 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chuong Ho
Examiner
Art Unit 2664

09/15/04